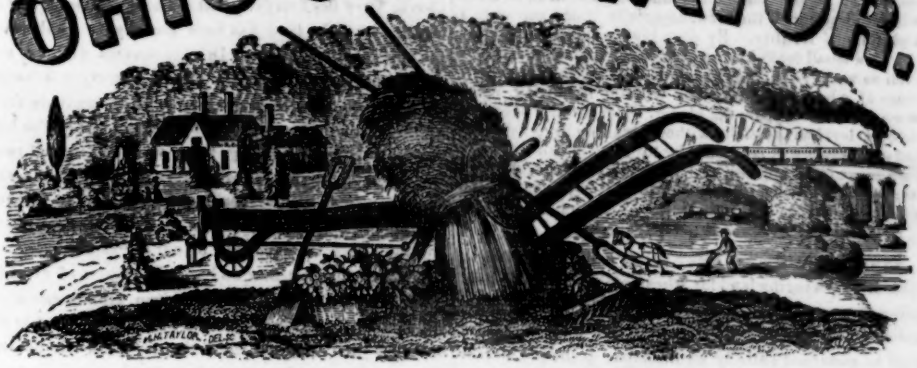
OHIO CULTIVATOR.



Devoted to Agriculture, Horticulture and Domestic Economy.

Published on the 1st and 15th of each month.--Terms, $1 per year--Four Copies for $3.

VOL. V. COLUMBUS, O., JUNE 1, 1849. NO. 11.

TERMS:

ONE DOLLAR PER YEAR IN ADVANCE,

Four Copies ordered at one time, Three Dollars, and at the same rate (75 cents each,) for any additional number.

New subscribers will be furnished with the back numbers of the current volume; and all or either of the four previous volumes, if desired.

The four published volumes are neatly bound in printed paper covers, suitable for sending by mail, price 75 cents each, or the full set of 4 vols. for $2 sent free of postage. The postage on a volume is 20 cts. for any distance.

Address M. B. BATEHAM, Columbus, O.

Knox County Agricultural Society.

This Society was organized at a meeting of the farmers of Knox county, held in the Court House in Mt. Vernon on the 14th day of April, 1849.—Wm. Bonar, Esq., *Chairman*, and J. H. Marple, *Secretary*.

A constitution was reported by a committee appointed for the purpose, and was adopted.

The following officers were elected for the ensuing year:

President—Wm. Bonar, Esq., of Morris township.
Vice President.—R. Graham, of Pleasant.
" " Hugh Elliott, of Clay,
" " E. S. S. Rouse, of Miller,
" " Wm. Babcock, of Berlin,
" " James Rigby, of Wayne.
Recording Secretary—Thos. T. Tress, of Clinton.
Corresponding Secretary—Dr. D. L. McGugin.
Treasurer—Moses True.
Executive Committee—Hon. William Bevans, B. F. Smith, Esq., John Hobbs, Dr. J. N. Burr, C. Delano, Esq., Aaron Douglass, Adam Rhineheart, Melvin Wing and John Parrot.

Next meeting of the Society, on Saturday the 9th day of June, inst., at 12 o'clock M.

☞ Many of the County Societies have already published their list of premiums for this year.

Wheat Culture and Blue Grass.

Ed. O. Cultivator:—In the last number of your paper for 1848, I read an article by Mr. Myres, making enquiry in relation to the above subject, and you very justly remarked, that the wheat growing friends should give the public the benefit of their practical experience, upon this as well as other subjects of importance. I will give briefly my experience, hoping that it will be the means of calling out older hands and abler pens than my own.

Blue grass is well known not only to grow from the seed, after it has been under the ground many years, but it will sprout in a wet season from the smallest root, if within an inch or two from the surface. The plan that I have adopted for five years past, has been very successful in destroying blue grass, and also in securing a heavy growth of first quality of wheat. I plow deep with three horses, say from eight to ten inches, and harrow immediately, until the furrow laps are well covered and the surface leveled. I then rib it with a rib plow, sow on and harrow light, being careful to let as little blue grass as possible get ripe. From thirty to forty days, I deem a period sufficiently long to prepare the ground for seed, but for convenience sake I often break up my fallow ground in June, yet I prefer August, if it did not interfere with other labor on the farm. I do not approve of stirring fallow in any case except where there are many stumps, and then it should be well rotted before being touched, either with the plow or cultivator. I have often tried prowing blue grass sod quite shallow, in May or June, supposing that the hot sun of July and August would destroy it, but often failed. A soaking rain in June or wet weather in August, made grass grow through the furrow and consequently the last state was worse than the first. I have tried deep plowing in May, harrowed and stirred the ground in August, but my sod was seldom sufficiently rotten to kill the blue grass. The soil should be made mellow and turned to the sun sometime before sowing, for the reason that a sod turned up deep and sowed immediately with wheat, the plants will look yellow, and not grow so well, as when turned some time to the sun previous to sowing.

The use of the rib plow will almost invariably prevent the wheat from heaving out in spring, and likewise will seldom be injured by severe spring frosts, and doubtless when the soil is in a good state of cultivation, the drill for

sowing wheat is a valuable machine. There is another advantage in breaking land up deep, and not plowing it again before sowing, viz: that two crops may be grown in succession on the same land, and the last in most cases will be superior to the first, especially if the soil is in a high state of fertility. By deep plowing, harrowing level with a small tooth harrow, and ribbing, good wheat land such as we have in Wayne county, will bring two heavy crops of wheat in succession, without manuring, when sown after three years old clover. I generally keep my land as level as possible without making deep furrows, but after sowing it is desirable to furrow out the land both ways in wet places and drain so that no water will stand on the ground for any length of time, to injure the wheat plants. Jacob Bowman.

Boughman tp., Wayne Co., O., May, 1848.

Remarks.—There are many points connected with the system of preparing land for wheat, embodied in the foregoing correspondence, that deserve more than a passing notice at our hands. In presenting our own views, we shall be governed entirely by the broad principle of free discussion, in the hope, that in connection with the experience of our practical and intelligent correspondents, we shall be jointly able to throw a flood of light upon the business of practical agriculture.

Deep plowing on most of the wheat lands of Ohio, would doubtless prove the most effective and the cheapest mode of preparing land for wheat. But there are many means of doing the work, some of which are much better than others, and the results in favor of each would of course naturally depend upon the character and condition of the soil, on which the systems or modes of performing the labors are made. As a general rule it will be found that a second year's clover sward plowed about the first of July, to the depth of ten inches, and afterwards cultivated entirely with a two-horse cultivator, will produce a better crop of wheat, and at less cost than the usual systems of preparing wheat lands.

Ribbing land for wheat is yet but imperfectly understood, and but rarely adopted by Ohio farmers. A ribbing plow proper, is the long handled plow in miniature. It is worked by one horse, and is exceedingly straight in the mould-board, so much so that in turning a nine inch furrow, of finely pulverised soil, the interstices or furrow-laps will be open, presenting the appearance of drills made for potatoes or turnips, only on a much smaller scale.—In most kinds of plowing it is desirable to lap the furrow slices snugly upon each other, but in ribbing land for seed just the opposite should be aimed at; and to keep the furrows entirely separated, the plow should be put on the opposite side of the furrow, required for clean plowing, by which means every rib may be made of a uniform width and depth. The seed should be sown broad-cast and harrowed in lengthwise. This will be found nearly or quite equal to drilling wheat, especially when the soil is very mellow and the wheat plants liable to be destroyed by frost.

If land be foul with wild grasses and weeds, it would certainly be a very questionable practice to delay the period of breaking it up until the month of August. The first of June would be decidly better, and the deeper it is broken up the more perfectly will the roots of the grass be destroyed. A much better plan than plowing one deep furrow, would be found in employing two plows to follow each other. The first should turn a very light furrow, which should drop in the bottom of the last furrow turned, and the second should be plowed as deep as the strength of the team will admit, and turned so as to completely bury the first furrow at least four inches below the surface, after the land has been thoroughly leveled with the cultivator or harrow. In wet seasons and on soils natural to indiginous grasses of the country it is found a very difficult and expensive matter to exterminate them, by the usual process of making fallows. All who have any knowledge of farming, know well that if land could be kept dry, the hot suns of this country would soon cause vegetable matters burried in the soil to undergo decomposition. Now this may most affectually be done and the difficulties advanced by our correspondent obviated, by a somewhat new and simple process of breaking up fallows. The ordinary American plow is calculated to cut a ten inch furrow, and by plowing the land in ribs or ridges just twice the width that the plow will naturally turn a furrow, the result from such a process would be, one half the land would be plowed and the other half unplowed, and the surface of the two furrows would be brought together, thereby causing speedy fermentation. The land would be thoroughly drained for the time being, and consequently whether the weather be dry or wet, blue grass and all other grasses and weeds would undergo decomposition. The land should be allowed to remain in that state, until the young growth of weeds get a few inches high, when it should either be cross plowed or worked with a Cultivator across the furrows. There are other points in the above communication upon which we purposed making some remarks, but we have already excceeded the bounds intended, when we sat down to make these comments.—*

Millet--Its Culture and Use.

This plant will grow upon any soil, if tolerably rich, but it does best on a fertile sandy loam. If sown about the 10th of June, it will come to maturity about the 1st of September. If sown in drills, from five to six quarts of seed may be sown per acre; but if sown broad-cast, as a substitute for hay, twice the above quantity will be required. On rich soils it will grow from three to five feet in height, and will produce from two to three tons of excellent forage per acre. When cultivated for seed the most economical method is to sow in drills, about fifteen inches apart, and if the ground be in a high state of cultivation, from thirty to forty bushels of seed may be reckoned upon as a matter of certainty. The seed, if ground or steamed, is a pretty good substitute for corn, in fattening hogs and other stock, and where poultry is reared to a large extent, it will be found the most economical food that can be cultivated for their use. The straw of millet when cut green, and before the seeds are ripened, if care be taken in curing it so that it will retain its naturally light green color, is highly relished by horned cattle of all ages and conditions, and horses.

It matures in a less period than any other crop that is sown for fodder, and hence it may with advantage be sown on land intended for wheat, instead of subjecting it to the expensive and somewhat useless process of summer fallowing. When sown for this purpose, the manure made on the farm should be applied liberally, about the

first of June, and before breaking up the land; and after being leveled and the surface brought into a mellow condition by harrowing and rolling, the seed may be sown at the rate of two gallons per acre. The latter part of August, the crop may be harvested, for fodder, and in the early part of September, the land should again be broken up for wheat. The manure applied for the crop of millet will have thoroughly undergone its various processes of fermentation, so as to make it in every respect adapted as food for the wheat plants.

A crop of millet sown on summer fallows, if the above directions be followed, will thoroughly smother weeds and wild grasses, and will leave the soil in a better condition for wheat, than if it had been exposed to the parching influence of the sun. It is a crop that is cheaply cultivated, easily harvested and cured, and besides furnishes an abundant supply of palatable and highly nutrative food for cattle, horses, and even sheep, to carry them through the winter. If any doubt these statements, it would be well for such to cultivate the millet crop upon a small scale, as a matter of trial, and in doing so we venture the opinion that it will shortly find favor by hundreds who at present have no knowledge of its use. *

Cultivation of the Ruta Baga.

The opinion generally prevails, that the ruta baga is an uncertain crop, and cannot be profitably cultivated in Ohio. The high price of labor, and the comparative low value of agricultural products, prevent nine tenths of our farmers making the experiment; and, besides, it is not to be supposed that those who have given their attention almost exclusively to other branches of husbandry, can be as successful in growing this crop as those who have a thorough knowledge of the business. The latter compose but a small portion of the agricultural community, and hence we submit a few hints which may be found useful and acceptable to practical agriculturists.

The soil of Ohio is well adapted for the growth of the ruta baga, and it would require but trifling expenditure in labor, to obtain an average crop of five hundred bushels per acre. On good soil and with proper cultivation a much higher average might be obtained. At a low calculation, the value of ruta bagas may be estimated at ten cents per bushel, at which value they may be profitably feed to milk cows, oxen, sheep, &c., during the winter and spring months. This would give the crop a money value of fifty dollars per acre, twenty of which in ordinary cases would be costs, and the remaining thirty, profits. Where turnip culture is carried on to a great extent, it is an excellent plan to select the poorest piece of land on the farm; and the manure should be made fine by fermentation, and applied liberally to the land for that crop, which in connection with the plowing given to pulverise the land, and the horse and hand hoeings required to keep down weeds, and impart a vigorous growth to the plants, will clean the land and prepare it better for the subsequent crop than if summer fallowed. But if only a small patch be cultivated with this crop, and the grower has doubts of success, the best course is to select the richest, and most highly cultivated spot of ground on the farm for turnips. At all events, the latter course is best until more experience is had in the management of this crop.

Before sowing ruta bagas, the soil should be brought by frequent plowing, harrowing and rolling, into a perfect state of tilth. The seed should then be sown in drills, about the 10th or 15th of June, twenty or twenty-four inches apart, at the rate of a pound per acre. Raising the land in drills is not a commendable practice, if it is sufficiently porous to allow the surplus water to pass off so as not to subject the plants to damage by heavy falls of rain. As soon as the young plants make their appearance above ground, a top dressing of plaster, strewed along the rows, will promote a speedy and healthy growth. If damage be apprehended from insects, the seed should be put into water to souk for about 12 hours, and dried with sulphur. This will impart to the plants an offensive odor, by which most of the turnip flies and other insects that attack the turnip crop when it is green, will search for food elsewhere. House ashes, slacked lime, soot, and sulphur mixed together, the three first being in equal quantities, and the last at the rate of one pound to three bushels of the mixture, if sown lightly upon the plants when the dew is on in the mornings or just after a shower, will greatly prevent injury by insects.

The horse hoe or cultivator, adapted for drill crops, should be used twice between the rows, in the early growth of the crop, and besides it will require hand hoeings twice, and at the same time thinning to a regular distance of about fifteen inches apart in the rows. If such information should be desirable, we would give at a future time the expense of managing of a ruta baga crop in detail; and at the same time show in its various bearings the advantages that would result to Ohio farmers, if they would give greater attention to this business. *

Facts for Farmers--No. 3.

Fattening Hogs.

Farmers ought to know that *spring pigs*, of any of the late improved breeds, if well fed *all the time*, can be made heavy enough by December and January (say from 190 to 250 lbs. average *net* weight) to bring the *best* price the packers give for any: and that too, at *less cost* to the farmer than in any other way that includes an *extra wintering*.

The most desirable hogs, to the generality of packers, especially since the English market has been opened to us, are those weighing from 190 to 250, *fat* and *small boned*. C. D.

Cincinnati, May, 1848.

Russia Turnips.

Mr. Bateham:—As it is nearly time for sowing turnips, it may not be thought amiss to speak of a particular kind called the Russia turnip. This s an excellent variety for table use, and was first introduced here by Mr. Almas Bradley, who procured the seed from Connecticut. They much resemble the ruta baga, when growing, but are white inside, whereas the other is yellow, and will keep till late in the spring. Between the 15th and 25th of June is the proper time for sowing. Prepare the ground well, take pains in sowing, hoe nicely, and my word for it, a good crop of turnips will be the result.

Mahoning Co., June 8th, 1849.

Remarks.—The turnip known in this country as the Russia turnip, is usually called in Europe, white Swede, of which there are several varieties. It is decidedly a

third rate turnip, when compared with the improved Ruta Baga or Swedish turnip. The mode of preparing land, and the after culture for the numerous varieties of the ruta baga family, are very similar in their character.

In another column of this paper will be found a few seasonable remarks that may be interesting to those who purpose cultivating rutabagas.—*

Science of Agriculture.

Use of Clover, Straw, Ashes, Plaster, &c., for Enriching Land.

In our paper just one year ago, we published an admirable lecture on Scientific Agriculture, by Prof. Norton. Those who have carefully read that lecture, or the writings of Liebig and Johnston, will the better understand and appreciate the following extracts from an address delivered by Prof. Norton at the N. Y. State Fair at Buffalo last fall. Our readers who have given attention to agricultural chemistry, will perceive that since the writings of Liebig, quite a change has taken place in the minds of scientific men on the philosophy of manures—especially in regard to the importance of *ammonia*; and even Liebig is said to have materially modified his opinions of late.—Every practical farmer who studies this subject, will admit that the more recent doctrines of the chemists are most in accordance with facts and experience.—*Ed.*

It is unnecessary to cite any facts proving the inequality of organic matter in different situations; every person at all conversant with practical farming, knows that scarcely any two soils are alike in this respect. There is no exact standard fixed as to what ought to be the proper quantity. We find fertile soils containing from one to twenty per cent, and therefore conclude that the establishment of such a rule is not necessary.

This organic matter being caused in the soil by the decay of plants and animals, must have been originally derived from the atmosphere. The earth at first was certainly destitute of any such matter, and the first plants were dependent for it on the air alone. This may seem an argument telling rather upon the side of those who uphold the doctrine of inorganic manures; but it is to be remembered that there are certain classes of plants which will thrive in such situations. On the bare drifting sands of Holland, the arundo arenaria, (a species of reed,) the spurry and various other plants are cultivated, which flourish in these places. When a few crops of these have died and decayed, there has enough organic matter accumulated to support more valuable plants. So it is frequently in this country; if we can by adding manures, bring our sandy soils up till they will bear clover, they can afterward easily be kept in good condition. The argument then tells in favor of the organic theory rather than against it, inasmuch as it shows the necessity to our valuable plants, of organic matter in the soil.

There is scarcely any land which does not improve to a certain extent by lying idle; this takes place even where the worst possible system is pursued, as in some parts of Holland, where they grow rye every season until they cannot get their seed back, and then let it lie for a few years. In the Highlands of Scotland, the same course is adopted with oats. I remember a story of a gentleman who remarked to a tenant, that he had a very poor crop of oats on a certain field; "'deed sir, and it ought said he, its the *fifteenth*." But even on such soils rest does not fail to produce a certain degree of renovation, so that after the lapse of a few years crops can be again obtained. This arises partly from the accumulation of organic matter, and partly from the decomposition of fresh quantities of inorganic substances, which are thereby made ready for the sustenance of plants. These two sources of benefit have caused the extensive employment of naked fallows; by leaving the land for a season without a crop, and frequently stirring it, the inorganic substances accumulated; indeed this was the chief benefit of the system, as the organic matter owing to frequent turning over and exposure to the air, was decomposed and disappeared to an extraordinary degree.

Now, by the introduction of green crops for plowing under, we are enabled to produce a much greater supply of inorganic substances for the next crop, and at the same time to increase instead of decreasing the organic part.—The roots of clover and other green crops, bring up from the lower part of the soil inorganic substances, which are with the plant deposited on the surface, in readiness for the support of the succeeding crop. Naked fallows then are no longer necessary, except perhaps occasionally for the extirpation of some troublesome weed.

This improvement of the soil is seen quite strikingly in forests. We there find that very poor land, incapable without heavy manuring of bearing crops, sustains a full growth of large trees, and at the same time improves from year to year.

This appears very strange, but when we consider the reasons for such a seeming anomaly, we find that it is only a beautiful exemplification of the law which we are considering.

The growth of our ordinary crops is sudden, and must be completed within a single season; that of trees is slow and continued through many years,—the demand upon the resources of the soil is more gradual. Then too the roots of trees bring their food from a very extended range; spreading wide and descending deep, they draw supplies from sources inaccessible to annual plants. By a wise regulation of Providence, the wood which constitutes the great bulk of the tree, contains very little inorganic matter, frequently not more than one-half or three-fourths per cent.; while the leaves often contain when dry, from fifteen to twenty per cent., and even more. Thus the trunk derives nearly all its bulk from the air, while the leaves with their large proportions of organic matter, fall upon the soil and constitute an annual top dressing, of a nature best calculated to improve its capabilities. Even when the trunks of the trees are carried away, a small portion of inorganic matter is abstracted compared with that which has been deposited on the soil during their growth, in the shape of leaves and bark.

The same thing is observed to a considerable extent upon grass lands, where the soil is of good quality. In situations where grass has annually grown and decayed undisturbed, for a long series of years, a surprising degree of fertility is attained. Many of our western prairies and cleared forests lands, are examples of this principle. We have instances where crops of Indian corn and wheat have been grown for many years in succession, with scarcely a perceptible diminution in the yield. Ordinary manure upon these soils is injurious, because it induces too luxuriant a growth, they really seem inexhaustible.—Where however there is no source of supply to make good the annual loss, this cropping will begin to tell after a time, and the crops will gradually diminish. This diminution will at first be slow, but no less sure; and if such a ruinous course be continued, we shall see tracts of our finest western soil become like that of Virginia, deserted and barren now, but once fertile as any soil could be.

It is a matter of national importance that this should not happen, that these broad and beautiful regions should remain what they now are, the garden of the earth; that the slow process of recovering worn out and exhausted land, should not be needed here. When land is in fine condition as that of the first column in the table, with all of the necessary substances present, the task of keeping it up is comparatively easy. A bushel of wheat weighing sixty pounds, does not contain on an average more than one pound of ash, or inorganic matter; so that even if the crop is fifty bushels, there will be little more than fifty pounds of ash to the acre carried away in the grain.—If the straw is also not returned to the land, the loss is far greater, for two tons of straw would contain not far

from two hundred and fifty pounds of ash. Here there would be a loss of about three hundred pounds annually. I am aware that in some western districts the application of this straw as manure would be injurious, because there is already more than enough organic matter. It might, however be burned, and the ashes applied, even in such cases. There would be no danger of over-luxuriance from this last application, and the disappearance of a class of substances difficult to replace, would be greatly retarded. It is on most soils much easier to supply organic matter than inorganic. By proper management the former may be obtained chiefly at the expense of the atmosphere, but the latter must come from foreign sources.

The time will arrive even on the richest of our western land, when the organic matter will begin to fail also; this period should be carefully watched for, and organic manures added as soon as it is found that the land will bear them.

It will have been noticed, perhaps, that I have during all of my remarks, spoken of inorganic and organic manures as alike necessary; this may have seemed strange to those who have seen many of the views now entertained by others on these points. No agricultural questions have been more vexed. At first we were required by a high authority to fasten our faith upon *ammonia* alone; if we succeeded in adding that to the soil, the work was nearly all done. Within the last two or three years, however a wonderful change has occurred; the same high authority assures us that all of our trouble in trying to catch ammonia, our precautions to prevent its escape, have been perhaps not exactly useless, but rather unnecessary, for inorganic manures are what we want; ammonia is a very good thing, but there is an abundance of it in the soil already, even when that soil is quite barren.—The consequence of these successive changes has been, that we have had wars without end. The ammonia theory was very beautiful, and was received with great eagerness; but by the time that the mineral manure theory appeared, many had tried of nothing but ammonia, others were disappointed in their expectations of success through its use, and all of these turned naturally to the new light. In England, specific mineral manures were patented, which were to work wonders under all circumstances.—There was a manure for wheat, one for oats, one for turnips, and so on, all infallible. It is just to say that there is no doubt but many of these extravagancies were put forth by interested parties in England, without the knowledge of the inventor. Those who have perused the English agricultural papers during the last few years, cannot have failed to perceive how general has been the disappointment in the use of these manures, and how much harm has resulted to the cause of rational improvement.

It may be best to explain here, that in speaking of inorganic manures I mean those strictly mineral, as gypsum, lime, salt, carbonate of potash, ashes, &c. There are also many manures of a mixed character, containing both organic and inorganic substances, such are guano, common farm-yard manure, &c.

As ammonia, or no ammonia, has been a species of war cry, I will take ammonia, or rather manures containing nitrogen, as the basis of a few remarks designed to show that the truth of this disputed question lies in *neither* of the extreme views above mentioned. I have noticed beside ammonia, manures containing nitrogen, for this reason: the beneficial action of ammonia consisting in the supplying of nitrogen to the plants, I maintain that some manures containing nitrogen in another form, such for instance as the nitrates, are equally beneficial. That is, I believe that plants may obtain their nitrogen in other forms than that of ammonia.

With this question, however, we have at present nothing to do. As to the beneficial action of ammonia, I shall only take up a part of the argument. The scientific grounds of dispute, would for the most part be unintelligible to this audience, and would moreover be wearisome from their length. It seems to me that with practical men the results of experience will be more impressive, and reasoning based upon long practice more convincing.

The beneficial action of manures containing nitrogen, has been considered as unquestionably established. Ammonia being the most common form in which nitrogen is applied, the name has become quite familiar, and manures containing a large quantity of it have borne a high value. It has been an object, as I have said before, to secure it and increase its amount in every possible way. Now, however, we are told that this has all been a mistake. It is said that sufficient ammonia is brought down by rain and snow from the atmosphere to supply the wants of any crop, and that moreover there is already a large quantity present in the soil. We are informed that there is, even in the subsoil, several thousand pounds of ammonia to the acre, and it is asked if the small quantity that the farmer applies can be expected to produce any additional result. Judging from the reputation of the gentlemen who made these determinations they should be correct, and yet I think that their samples of soil must have been rather remarkable ones. If there are thousands of pounds of ammonia in an ordinary soil, why is it that the addition of two or three hundred pounds of some manure containing a certain proportion only of that substance, produces such a marked and striking effect? I have seen many comparative trials of different manures, on grain crops for instance, and where each manure occupied a ridge through the field, those upon which the ammoniacal manures were employed could always be selected from among others, by the superior luxuriance and the peculiar dark green of the leaves and stalks. That this was owing to nitrogen, was proved by the appearance of the same distinctive characters where nitrates had been applied. Every farmer who allows the dark colored drainings from his barnyards to run over his grass, has seen the same dark green color and great luxuriance. Very careful experiments have lately been concluded in England, having for their object the decision of this question. The result arrived at, seems in the main to be, that ammoniacal manures have in most cases, a marked effect; they do not always increase the yield of grain, but always the growth of straw. Why is it that the small quantity of ammonia added in the shape of guano, or very rich barn yard manure, produces such an effect when there are already thousands of pounds in the soil? Clearly, this large quantity must either be in some form inaccessible to plants, (and it would be difficult to conceive of any such form,) or it is not in most cases present.

When the proportion of lime or any other inorganic manure is sufficient in a soil, the addition of more is of no service; this we know by repeated experience; might not the same thing be expected of ammonia? In this way the objection that ammonia is frequently of no use, should be answered. It is quite true that where it would fail to produce a crop, bones perhaps might succeed perfectly; but this only proves that phosphate of lime, or bone earth, was the particular substance which that soil wanted. If a soil were entirely deficient in lime, the addition of every other manure under the sun, so long as they did not contain lime, would not secure a good crop of any plant requiring that mineral ingredient. On the other hand, if there were already lime enough, tons of it in addition would not compensate for the absence of potash.

So also, there are soils where an abundance of ammonia is already present; on these further additions do no good, and even in many cases do harm, by causing an exceedingly rank and luxuriant growth of stalks, so that the grain does not come to maturity, or is injured by lodging; the inorganic matter not having kept pace with the organic, the stem is weak. Such is the case on some of our rich prairie lands. Unhappily there are but few farmers who have the good fortune to possess land of this description, and therefore in the vast majority of instances ammonia will be found beneficial, and the farmer will have good crops who uses it judiciously in connection with other manures.

The soils of the best districts in England, are in highe:

condition than any of ours except in peculiar cases, for their average crops of wheat, oats, turnips, &c., are much larger than ours. These soils then, might be supposed well stocked with ammonia, and ought to contain a number of tons per acre. It is, however, a singular fact, that the price of guano in the English markets, has for several years been ruled by the quantity of ammonia that it contained. During my stay in Edinburgh, samples from more than five hundred cargoes were analyzed in the laboratory of Professor Johnstone, and were sold by his analyses, fluctuating in price as they indicated more or less ammonia. Had there been any mistake in this method of estimating value, experience would soon have detected it.

The farmer then, I should say, ought to collect and apply nitrogen in every accessible form; not because it is more necessary than other constituents of the soil, but because it does not so often abound there, and because plants obtain from the atmosphere with less facility than they do the other elements of their organic part. Ammonia being the most common compound containing nitrogen, his attention will naturally turn chiefly in that direction.

I have touched upon this subject at the present time, from a conviction of its importance to the cause of agricultural improvement. When farmers are told on the one side that a certain substance is valuable to them, and on the other that it is useless to trouble themselves about it, they are of course perplexed, and can only fall back upon results; even these are liable to misinterpretation, but when they are so nearly uniform as in the case of ammonia, the practical man is justified in disregarding mere assertions to the contrary.

I am not so vain as to suppose that my views upon this question will convince those who hold contrary opinions, but if they lead them to reconsider the question calmly, with minds as far as possible divested of mere theoretical considerations, I shall be satisfied.

The Cow---Her Diseases and Management.

Continued from page 135—*abridged from American Agriculturist.*

Inflamation of the Bag or Udder.—This is a very common disease, also called 'garget," or the "yellows," the attack of which is generally sudden. Milking cows are most subject to it, more particularly old ones; and if the complaint is not early checked, the loss of one or more of the quarters, (of the bag,) is generally the consequence. Therefore, proper medicines cannot be too soon administered to stop its progress; for, if neglected in the first instance, and the inflammatory symptoms should rapidly increase, it is liable to extend into the body of the animal and attack some of the vital parts, and death will be the result.

The most predominant cause of this disorder is from catching cold or a bad habit of the body, but more frequently the former. It may also proceed from other accidents, such as kicks, blows, or a poke from another animal; and sometimes by laying on the part affected herself, which is not unfrequently the case.

The first symptoms of the complaint are a sudden swelling in the milk bag or udder, in one or more of the quarters, attended with costiveness, fever, and loss of appetite; and previous to the attack, it is not unfrequently preceded by a cold shivering, or shaking of the extremities; and when the teats are drawn, the milk is dreggy or becomes coagulated. As the disease advances, the watery part of the milk is bloody, and, as the swelling augments, the bag becomes more red and inflamed, which gives the cow great pain when touched; her hair stands on end, and her hide soon adheres tight to the ribs. When the loss of a quarter takes place, and the inflammatory symptoms abate, the milk soon forms into complete corruption, or partakes of the character of pus.

If the disease originates from cold or bad habit of the body, bleeding is absolutely necessary, and no time should be lost in performing the operation. The quantity of blood to be taken must depend entirely upon the age and strength of the animal and the urgency of the case.—Two or three quarts may be taken, if the cow is in good condition and the inflammatory symptoms run high; but if lean, or low in flesh, half the quantity will suffice.—The best place to perform this operation is in the milk veins which are distinctly to be seen on each side of the belly, and communicate directly with the udders. Bleeding from these has a better effect in reducing the inflammation, than when drawn from any other vein, as it takes the load much sooner from the oppressed vessels, and consequently gives more room for circulation. When the operation of bleeding is finished, the following mixture may be given, at one dose, milk warm, in a pint of strong beer or ale:—

Sulphur, from 9 to 12 oz.; grains of Paradise, (cardamoms,) or long pepper, 3-8 oz.; cummin seeds, ¾ oz., tumeric, ¾ oz.; water gruel, 3 pints; molasses, 3 gills.

This drink will generally begin to operate in about twelve hours from the time it is given, if it does not meet with any particular obstruction in its passage; otherwise, it may be twenty-four hours. If it should not then operate, from three gills to a pint of cold-drawn linseed oil may be administered with the same quantity of tepid water gruel in which a small handful of common salt has previously dissolved. When this drink has done operating, the following medicine is to be given at one dose, in a quart of warm beer or ale, wherein a small handful of the leaves of wormwood or rue has been previously chopped and boiled:—

Flour of sulphur, 3 oz; saltpetre, (nitre,) 1½ oz.; madder, 1½ oz.; grains of Paradise, 3-8 oz.; valerian, ¾ oz.; cummin and coriander seeds, each, ¾ oz.

In the course of the treatment, each diseased quarter should be drawn out three or four times a day, not forgetting at the same time, to give friction to the parts affected with the hand; they should also be rubbed twice a-day with the following liniment:

Lime water, 4 oz.; linseed oil, 2 oz.; spirits of turpentine, 2 oz.

The linseed oil and spirits of turpentine are first to be mixed together, after which the lime water must be added by degrees and well shaken, in order to make them unite.

If the inflammation runs high, and there is danger of mortification, the following ointment may be rubbed on the parts affected twice a-day:

BLACK OINTMENT.

Take hogs' lard, 4 oz.; oil of vitriol, (sulphuric acid,) ½ oz.; spirits of turpentine, 1 oz. Mix together for use.

The parts may also be fomented once or twice a-day with the following decoction which may be applied with woollen cloths or a large sponge:

Wormwood, a large handful; camomile flowers, 4 oz.; bayberries, [Laurus nobilis,] 2 oz.; juniper berries, 2 oz. To be boiled in six quarts of beer grounds, [emptyings,] or in water if these cannot be procured. It will also be advisable to give at one dose, in a quart of warm strong ale, once or twice a day, the following medicine:

Peruvian bark, ¾ oz.; powdered gentian, ¾ oz., saltpetre, 1½ oz.; valerian, ¾ oz.

The regimen of the cow, in this case, should consist of warm water or thin gruel, sweet hay, and once or twice a-day, a mash may be given made of malt, bran, or Indian meal, which is a very proper food during her illness, as it always tends to keep her body in a regular state.

When the disease proceeds from external accidents, such as pokes from other cows, kicks, blows, or by lying on the udders, or from the tread of another animal, the first method of cure is to bleed to the amount of from one to two quarts, according to the strength and condition of the cow, and then give, at one dose, milk warm, in three pints of water gruel, with which half a pint of molasses has been added, the following mixture:

Epsom salts, from ¾ to 1½ lbs.; valerian, ¾ oz.; cummin and anise seeds, each ¾ oz.; tumeric, ¾ oz.

After the operation of this medicine, the following may be administered, at one dose, in three pints of water gruel, once a-day, till the inflammation is removed:

Saltpetre, 3 oz.; fenugreek, in powder, 1½ oz.

In the mean time, the liniment described above is to be applied twice a-day to the swollen parts, and the bag rubbed hard as before recommended. If these rules are strictly adhered to, the cure will soon be complete.

This malady may also arise from improper milking, as leaving too great a quantity behind, in consequence of which the bag will swell, and the milk therein become ropy, coagulated, or thick; and if this practice be continued, it will frequently cause the loss of one or more quarters. Therefore, the bag should be clearly milked out; otherwise all attempts to cure will be of no use. If this neglect has been long continued, the udders become inflamed, in which case bleeding and purging will be requisite as above directed for pokes and kicks. When the operation of the purge has ceased, saltpetere and fenugreek, as well as the liniment may be administered, once a day, as above recommended, till the milk returns to its former healthful state.

The regimen, in each of the latter two cases, should be of an emollient kind, such as malt and bran mashes, warm water, and gruel made of oat or Indian meal.

Grain Sick.—This disease is caused by improper feeding, in allowing the animal too great a quantity of grain at one time, particularly those which have been subject to the process of distillation.

The first symptoms are a dull, heavy appearance of the eyes of the animal; she frequently shifts about from one side to the other, and when she is let loose and driven about, she complains or grunts more or less. On examination, a fullness may be perceived between the hip and ribs, on the opposite side to the milking one, if pressed down with the hand. This fullness is produced by the extension of the stomach.

Bleeding and purging is believed to be the only remedy; the first to relieve the urgent symptoms—the second to remove the cause of the disease. The quantity of blood to be taken away may vary from three to five pints; after which the following purging drink may be given, milk warm, at one dose, in two quarts of water gruel, and half a pint of molasses:

Sulphur, from 9 oz. to 1 lb.; grains of Paradise (cardamoms), 3 drachms; saltpetre, 1½ oz.; tumeric, 3 oz.; cummin seed, ¾ oz.

When it has fully operated in unloading the stomach, the weakness of the organ, the loss of appetite that ensues, and the deficiency of milk connected with it, will be repaired by medicines of an aromatic and bracing nature; like the following prescription:

Gentian, cummin, coriander, valerian, and anise seed, each, ¾ oz.; grains of Paradise, ¾ oz.; flour of sulphur, 1½ oz.

To be mixed, and given at one dose, in a quart of mild ale or beer, after having previously boiled it with a handful of chopped rue. This should be given when warm, and repeated once a day, or every other day, till recovery takes place, which usually happens in a few days.

The regimen should consist of diluted liquors and mashes for some days after; and grains are entirely to be given up till the stomach gains its former strength and tone. They are then to be given with caution in order that no relapse may ensue.

Losing of the Cud.—This malady arises from a relaxed state of the bowels, and the accumulation of food in the first stomach, which, in not being able to be returned by the cow into her mouth, does not undergo the second process of chewing, so essential to the preservation and maintenance of health.

This disease readily yields to the treatment recommended in "Grain Sick," first by purging, and then bracing up by tonics, diluent washes, &c.

Hydrophobia, or Madness.—This disease arises from the bite of a dog, or other animal affected by madness, or rabies. Although it is regarded as incurable, it is proper to know its symptoms. These are a constant distress and lowing of the cow, a great flow of froth from the throat and tongue, with the breathing some what irregular; the malady at last breaks out into an ungovernable frenzy, or madness, and the loss of power over the voluntary muscles extends throughout her whole frame, and in four or five days from the commencement of the disease she dies.

The cow, as well as the hog, the sheep, and the horse, does not appear to be able to transmit this malady by biting, like the dog, the cat, the wolf, and the fox.

Wounds by Goring, or Pokes.—Cows, when they get together in the yard, or elsewhere, are liable to be gored by each other in different parts of the body, especially if any one of them is wounded, and they see or smell the blood. This renders them furious, and they fight and poke at each other with their horns.

The treatment of all such wounds is to be conducted, first by endeavoring to stop the effusion of blood, either by styptics, by pressure [binding up,] or else by sutures, or stitching of the part. The styptics commonly used consist of

Oil of vitriol [sulphuric acid,] and brandy, each, 1½ oz.; or common salt and nettles, a handful each.

To be beaten together in a mortar till it becomes a pulp, and then placed on the wound. If not sufficient to stop the blood, it may be assisted by pressure or a bandage; if it still fails, and should the situation admit of it, the lips of the wound, or the divided skin, may be brought together with crooked needles or pins specially made for the purpose. When this is done, everything is to be left for the first twenty-four hours, in order that the blood vessels may collapse, and a further effusion of blood may be prevented. At the end of that time the wound should be dressed.

In case the external opening of the wound is confined and the gore very deep, a small candle should be thinly wound round with flax or tow; and after it has been well soaked in the following balsam, and dipped in the digestive ointment prescribed below, it may be conveyed into the wound and there left:

WOUND BALSAM.

Take compound tincture of myrrh, 4 oz.; cold drawn linseed oil, ½ pint; spirits of turpentine, 4 oz.; and mix well together.

DIGESTIVE OINTMENT.

Take common turpentine, 8 oz.; spirits of turpentine, 5 oz.; linseed oil, 2 oz.; and mix over a slow fire.

The swelling is then to be rubbed once a day with the following stimulant oils:

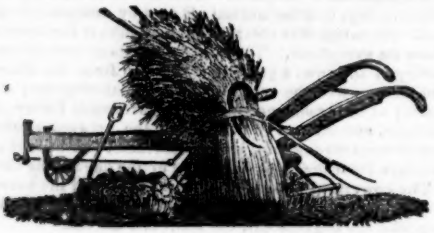
Linseed oil, 8 oz.; oil of turpentine, 2 oz.; oil of vitriol, 1 oz.

The last-named article is to be gradually mixed with the other two. The application of this will prevent any tendency to mortification, and also produce a quick suppuration, or running of the sore. These dressings may be repeated twenty-four hours. If the parts are much swollen and inflamed, a dose of epsom salts may be given, and the following fomentation used once a day:

Camomile flowers, ½ lb.; wormwood, a large handful; bayberries [Lauris nobilis,] and juniper berries, each 4 oz.; beer, or ale grounds, 6 quarts; vinegar, 1 quart.

The whole to be boiled for a qarter of an hour, and then to be applied, while quite hot, by dipping in it a large piece of flannel, and fomenting the inflamed parts. When this operation is finished, the flannel should be allowed to remain, and the animal covered up so as to avoid catching cold.

QUICK WORK.—We learn that an ox was dressed yesterday at Marsh's slaughter-house, on a wager, in time which almost challenges belief. Edward Silver slaughtered and dressed an ox weighing 575 pounds, in six minutes, thirteen seconds When we hear of this time being beat, they can take the *Silver!—Chicago Journal.*



OHIO CULTIVATOR.

COLUMBUS, OHIO, JUNE 1, 1849.

Editorial Arrangement.—This number of our paper goes to press a day or two sooner than the usual time.—Mr. Bateham leaves town immediately, on a rambling trip northward. His health has not been very good of late, and he trusts that a couple of weeks' furlough will prove beneficial. He has engaged the services of a gentleman who has had some experience in editing an agricultural journal, as well as practical farming, to attend to the duties of the office during his absence, and perhaps to remain permanently as an assistant. Articles by his pen may be found in this and succeeding Nos., marked thus *.

The Season is quite backward at present; the weather having been very cool of late, especially for corn; but as this crop never fails in Ohio, we have reason to be grateful for the general good promise of wheat and grass.—There has been much need of rain in these parts for some time.

The Zanesville Gazette of 23d says: "The wheat crop looks well, and enjoys, so far as we can learn, an entire exemption from the ravages of the fly. The weather has been rather cool for corn, and just now rain is needed."

The Fruit Prospects throughout the country are much better than was supposed possible, last month. We anticipate a very large show, and much valuable investigation at the Ohio Fruit Convention to be held at the time of the State Fair, in September.

Ripe Strawberries were exhibited by Mr Sites, (from Burr's old garden,) on the the 19th ult.,—the first of the season.

The Ohio State Board of Agriculture will meet in Cincinnati, (at the Room of the Horticultural Society) on Wednesday the 20th of June, inst., for the purpose of appointing judges and other committees for the State Fair, and conferring with the local committee of arrangements. Members of the Board are requested to bring with them lists of suitable persons residing in Ohio and adjoining states, to act as judges to award premiums at the Fair. As the number desired is quite large, say 200 or more, it is hoped that all the members of the Board will assist in the selection—those who may not be able to attend the meeting on the 20th, can forward their lists to the secretary.

The Cholera is now so nearly extinct in Cincinnati, and so very manageable in its character that it has ceased to excite much apprehension. We hope it will shortly disappear entirely.

Our Thanks are due to the late Commissioner of Patents for a package of seeds of several varieties, from China. (We will endeavor to have them fairly tested in this climate.)

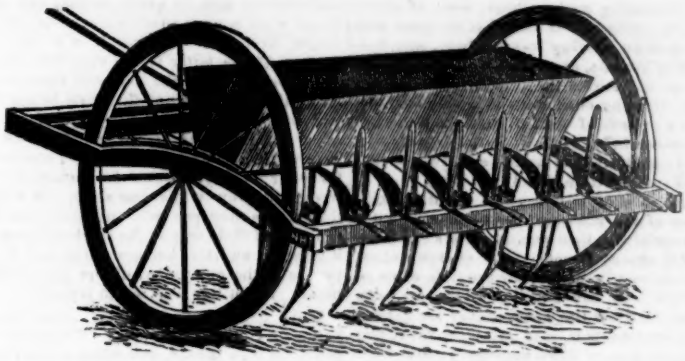
Also, to the present Commissioner of Patents, (Thomas Ewbanks, for a copy of Dr. Beck's valuable Report on the Bread stuffs of the United States." (Extracts in our next.)

The New Commissioner of Patents.

Mr. Thomas Ewbanks of this city, has been appointed Commissioner of Patents in place of the Hon. Edmund Burke, removed. This appointment will give general satisfaction to all our inventors Mr. Ewbanks is an inventor, a practical mechanic, a man of great scientific attainments, and author of that pre-eminent work, "Ewbanks Hydraulics." This work together with many other scientific papers has given him a good and great reputation both at home and abroad. He is a man of unsullied character, modest and generous, but firm and just also. No better appointment could be made. Mr. Burke was a good Commissioner of Patents, and we suppose that he was removed because he was a keen partisan. Mr. Ewbanks is not a hot partisan, but a good quiet citizen, and this qualification is a good recommendation to inventors. What do they care about parties? Our inventors want a man who will compile statistics on the improvements in the Arts, not party statistics. Agricultural statistics and statistics on public policy, are excellent, but they should be compiled by boards for that purpose. The Patent Office is supported and sustained by the money paid in by inventors to the Treasury, and surely no other class has a right to the labors of these officers, who are paid and supported by the funds paid in by inventors. We contend, and always have contended, for the rights of inventors, but their rights have been overlooked always for the benefit of others. The Patent Department was instituted for the purpose of encouraging improvements in the "Useful Arts." Now, although this is an undeniable fact, we well know, and have spoken of it frequently, that the improvers, the inventors, have received far less attention than some others who never paid a single dime for the advancement of the Arts. Huge documents on agriculture have been issued year after year from the Patent Office, while the epitome of improvements in the Arts has presented a miserable appearance in comparison with their buttermilk neighbors, for whom the inventors did all the churning, and made the churn too. We hope after this that all the Patent Office Reports will embrace matters only relevent to patents and improvements in the arts, with legal information in connexion, and that a copy of every Report for the year be sent to each man who secured a patent during the year.

In penning these lines we write above partisan feelings—for we are on the side of justice with the good will, we know, of inventors, who are of every party in politics, and who care for justice alone in this department above Whig or Democratic feelings. Mr. Ewbanks we know will give his influence and the best wishes of his heart to secure full justice to inventors and to extend a more universal and better knowledge of American Science and Art.

Mr. Burke, as Commissioner of Patents, earned the fame of being a prompt and able officer. Whatever faults one party may have with another, is no business of ours. We speak of him as a high officer of the U. S. Government, who performed his duties with honor to himself and his country, and it is a source of pleasure to know that his mantle has fallen upon worthy shoulders.—*Scientific American.*



Palmer's Grain Drill, or Sowing Machine.

This machine was noticed in our paper last fall, (Nov. 1st) and its advantages briefly stated. We are gratified to learn that the manufacturers are making arrangements to introduce a number of these machines into Ohio, in time for next wheat sowing. Messrs. Joseph Niles and C. J. Whitcher are now traveling in Ohio receiving orders, for Messrs. Fitch, Barry & Co., manufacturers at Rockport, N. Y. These gentlemen State that they have manufactured and sold 120 of these machines the past season; and that they have given the highest satisfaction. The advantages of the drill system of wheat culture are stated, we believe correctly, as follows:

"1ST.—When the grain is deposited it is covered at a uniform depth. It is estimated, generally, that at least one peck of seed to the acre is saved by the drill system.

2ND.—It is not as likely to winter-kill. The Drill raises ridges on each side of the rows; these ridges crumble down by the action of the frost, and thus cover and nourish the young plants, and prevent them from being thrown out by the freezing and thawing; and it also is a great preventative from the effect of draught on spring crops.

3RD.—It is not so liable to rust. Ellsworth report says: "There have already been many experiments made in the Drill culture. A gentleman drilled fifteen acres nine inches apart and sowed fifteen acres broad-cast: the latter was lodged and stained, and saved with great difficulty, while the former was not lodged at all. The produce of grain on the Drill culture was 10 to 15 bushels more in quantity and one shilling per bushel better in quality. Dr. Noble, of Delaware, drilled about 27 acres, and sowed broad-cast 7 acres. The drilled produced from thirty-five to forty bushels per acre, and the broad-cast only 27½ bushels.

Many testimonials are given by farmers who have used Palmer's grain drill. We copy the following two, from well known, respectable farmers in Monroe county, N. Y.

MR. PALMER—*Dear Sir:*—I have harvested my wheat, and have ascertained the comparative product of that planted with your Drill, and that which was sown broad-cast, in the same field, side by side, at the same time. A strip of land on each side of the drilled wheat, produced nineteen and one-fourth bushels per acre, while that drilled in, produced thirty-one bushels per acre. Making a difference in favor of the drill, of eleven bushels and three pecks per acre. It was all put in, the last days of September.

Brockport, October 1, 1848. FREDRICK W. BREWSTER.

MESSRS. FITCH, BARRY, & CO.—*Gents:*—I sowed in the month of September last, about 100 acres of wheat with Palmer's Grain Drill, and a few acres broad-cast—intermixed occasionally—in fields, as an experiment. The broad-cast sowing, not being covered so deep generally, came up first, and looked the most promising, but on examining both kinds carefully since the 1st of the month, I find the drilled-in wheat far preferable: it stands much more even; the leaf is broader and the plant is generally more healthy. It is my opinion that I shall be advantaged at least $500, in sowing the 100 acres with a Drill instead of broad-cast. Yours, &c.,

Clarkson, Dec. 22, 1848. GEORGE CHEENEY.

The following certificate is from an extensive wheat farmer in Champaign co., and the only person we believe, who has as yet tried the machine in Ohio:

MR. PALMER—*Dear Sir:*—I sowed last fall about twenty acres of wheat with your grain drill, and a few acres broad-cast, in the usual way, in several parts of the field for the sake of experiment. On examining the wheat now, I find that sown with the drill has not been injured by the winter, while that sown broad-cast is much injured. I believe I shall more than save the cost of the machine in my crop the present year. I believe the drill to be a great labor saving machine and would recommend it to the attention of all wheat farmers.

Near Urbana, Champaign Co., O., March 21, 1849. BENJMIN B. KENEGA

☞ JOSEPH NIELS and C. J. WHITCHER are now traveling in Ohio procuring orders for Palmer's Drill, as agents for the manufacturers. Orders may also be addressed directly to MESSRS. FITCH, BARRY & CO., Brockport, Monroe County, New York. The editor of the Ohio Cultivator will forward orders for any of his friends who may desire him to do so. The price of the Machine is $100, delivered at any port on Lake Erie—or $1 5, at any point on the canals or rail roads in Ohio; $25 to be paid on receipt of the machine, the balance in 3 or 6 months.

Gatlin's Wheat Drill.

ED. O. CULTIVATOR:—In the 1st January No. of the Cultivator, I noticed a letter from your valuable correspondent, D. Lapham, in which he discourses on a variety of subjects, and amongst the rest, Gathin's Wheat Drill. He says: "We have not yet sufficiently tested its qualities to enable us to give an opinion upon it. One thing, however, is very apparent, that in order to use this machine properly, it will require *very clean farming*. If the machine should effect an improvement in this respect only, a very great advantage will result from it, to the country."

Notwithstanding the qualifying clauses which preceed and succeed the expression *very clean farming*, I felt the force of that remark the moment I read it. Believing that it required an answer, I've waited thus long in hopes that some one better qualified, would say something in regard to it. Should D. L. by "very clean farming," mean a close pasturing, or something similar, previous to plowing, as a requisite, he is very much mistaken. What

would he think of turning under a heavy coat of stuble the day previous to drilling? Would that comport with his notion of very clean farming?—say wheat, oats, barly, or barly and flax stubble, or even corn stalks plowed under in May, and not stirred till September, and not a beast of any kind running on it in the winter. Imagine to yourself what a growth of stuff would be on the latter; yet it was successfully drilled. In such condition for the past two years have our lands been, yet we successfully used the same pattern that D. L. used.

Whilst I am free to confess that clean farming facilitates the operation of the machine, at the same time it is not an essential requisite:—new ground always excepted, for it will not work amongst roots. The question naturally occurs, how do you manage your grounds when so foul? Simply plow deep, say 6 or 8 or 10 inches; use a chain called a drag, to draw the weeds under the furrow slice, while the plow inverts it, and my word for it you can Drill any kind of ground when managed in that way.

Yours, &c.,

Xenia, March, 1849. J. C. G.

Improvement in Farming.

When shall we see improvement among all farmers? We do not despair of seeing it general, if not universal. We see it already in many towns throughout the State—and what is the result? In many of these towns already, an *advance* of from ten to twenty bushels per acre of the various crops raised. This is encouraging, and should induce every farmer to lend his aid. But perhaps some readers of the Farmer will say, "what do you mean by improvement?" We answer generally—first of all, know what is your soil; if grains are your main independence, what grains are best adapted to it. See if draining is needed—and here let me say it is much oftner necessary that farmers who have not paid attention to the subject suppose. If needed, see that it is done with as little delay as practicable—and we will venture to assure you, your crop from this source alone shall be increased from one-quarter to one-half. If you doubt, try it carefully on a small piece of land, beside your land on which water stands more or less during the season, and if you do not realize at least one-quarter advance, we will admit that for once, land that needed draining has not been improved.

Select your manures judiciously and apply to the crops that need the variety you make. Would not this add much to your crops? Who does not know that often a wheat crop is ruined almost by an application of fresh manure directly to the crop, which if applied to a preceding corn or root crop would have been of great value, and would have been sufficient for a wheat crop to succeed. Keep your land thoroughly subdued and let not the weeds master the grain. It costs no more to raise grain than weeds—and which is the most profitable for the farmer? Improvement then can be had by carefully extirpating your weeds, and giving the grain an opportunity to obtain all the nutriment.

Be careful in the choice of your seed. No man ever succeeded well who neglected this. It is a small matter perhaps you think. Is it? Let us see. Good and perfect seed will usually vegetate and produce much larger returns than poor half formed seeds. It will not fail to prove true as a general rule that like will produce like, and what a man sows that shall he also reap.

Let your implements be of the best kind, and wherever labor saving implements can be introduced to aid you, have them; all helps to cheapen the cost of production and increase the profit of the farmer. And don't forget to have every thing on your farm needed for work in its place when not in use, so that half the time of your men may not be taken up in running after the utensils, which have been left where last used, instead of being in their proper place. Would not this be improvement, if properly attended to?

Keep an account with your farm—yes, with every field—and let it be carefully charged with every expense and credited with its avails, so that you can at any time know what is your condition, whether advancing as you desire, or whether the result is a loss. Change your method, if the latter is the case from year to year, and soon you will find the crop and the system of management that will pay at all events you will know where you are, and it will be your own fault if you do not bring your books to show the balance on the right side.

Is your land suited to fruit? Then let the best kinds for your locality, adapted to market, be selected. The trees will grow while you sleep. It will be but a little time before they produce, and soon your fine apples will yearly find their way to the sea-board—across the ocean, it may be; and the balance sheet will be all right, and you be in the enjoyment of the good fruits of improvement. Is not this well worth trying?

Is the dairy your business? How much cheese and butter do you make per cow? Those who attend to their dairies as they should, and select cows suited to them, are realizing from 500 to 600 pounds of cheese per cow, and from 200 to 300 pounds of butter. Have you reached this standard? If not, is it not worth your while to make the inquiry and ascertain what is the difficulty? Now, is not that an improvement which secures the return above given?

And now let us look at this matter personally. Improvements are needed—can be made—and shall they not be made? What say the farmers? What say the boys? An answer such as would be worthy of an American farmer would be—*I will try;* and if you *try* with all the lights which experience as well as science suggest, we venture the prediction, you will succeed—and then an answer will be found to the question which commences our article.—Agricola.—*Genesee Farmer.*

New York State Agricultural Society—1849.

The New York State Agricultural Society unquestionably stands at the head of all the agricultural associations of the country. Its operations for the present year are marked out on a liberal and enlightened scale. Its premium list has been arranged with much care and discrimination, and the amount offered in premiums cannot fall much if any short of six thousand dollars. The annual exhibition and fair of the Society will be holden at Syracuse on the 11th, 12th and 13th of September next. Prof. James F. W. Johnston, of Durham, England, one of the most distinguished agricultural chemists of Great Britain, and whose published works are extensively known in this country, has accepted the invitation of the Executive committee, and will deliver the address on the occasion.

The Society has established an agricultural library and museum, which are constantly increasing in extent and value. The Legislature has lately appropriated $100 for the benefit of the museum. At the solicitation of the Society the Legislature has also passed a joint resolution for the appointment of eight commissioners to mature a plan for an Agricultural College and Experimental Farm. In view of the interest maifested in relation to these matters in New-York, we would ask if the authorities of our own State are now doing enough for the encouragement of agriculture, and for the dissemination of agricultural knowledge?

"Three premiums are offered by the New York State Society for farms, $50, $30 and $20. Those on cheese dairies the same, showing the great importance of this branch of business in the estimation of the Society. The same premiums are offered on butter. Premiums of $30, $20, and $10 are offered for experiments in draining land. For Essays and Reports premiums are offered as follows:

"The Society desirous of encouraging inquiries and investigations connected with the science of Agriculture, and being aware how little is known with regard to some of the fundamental principles of Agriculture, solicits essays or articles on the following subjects.

"The subjects will be continued for more than one year, unless in 1849, papers are received which may be considered satisfactory."

Influence of Soil on Vegetables.

1. For an essay or memoir describing or proving, on scientific principles, what is the best admixture of the ordinary elements of soil, for promoting the germination and growth of particular kinds of vegetables.

Silver cup, value $25.

2. For an essay or memoir describing, on scientific principles, the mode in which gypsum operates in rendering the soil better adapted for the germination and growth of particular vegetables, as well as the soils to which it is best adapted. Silver cup, value $25.

Atmospheric Influence on Soils.

3. For an essay or memoir, showing the nature of the atmospheric influences on soil in promoting its fertility, including the modification of these influences arising from heat and cold, dryness and moisture.

Silver cup, value $25.

Agricultural Works for Common Schools.

On the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of Agriculture, adapted to common schools. $100.

(The work to be of a popular character, presenting scientific truths divested as far as practicable of technicalities—not to exceed in size 150 pages of the School District Library size. The copy right to remain with the author under a recommendation from this Society, that the publishers of books from the School District Library should adopt this among their works for general circulation. To be presented for examination by the 1st of January, 1850.)

The prizes on field crops are numerous, and range from $20 to $3.

On cattle the premiums are for Short Horns, Devons, Hereford, Ayershires, Native and the several crosses. The amounts offered are from $25 to $3. Similar prizes are offered for fat cattle. On horses the prizes are about the same as on cattle. On sheep they are about half the amount. On swine, the same as for sheep.

Premiums are offered for implements, manufactures, poultry, fruits, vegetables, silk, and a multitude of other things.

Agricultural addresses from distinguished gentlemen connected with learned institutions, will be given every evening during the Fair.

The location of the Show being so central and convenient, it is expected that there will be a large competition from other States and the Canadas—and the Executive Committee extend a cordial invitation to gentlemen abroad, to be present with their Stock, Fruit and Implements, for competition.—*Maine Farmer.*

Bees and Bee Management.

EDITOR OHIO CULTIVATOR:—You made inquiry in your Cultivator, as to the best mode of successfully raising bees, and as I have some knowledge of the business, I take the liberty of responding to the call. The millers should be kept from the bees, as they destroy the young when they are breeding, and thus prevent them from swarming. Those who wish their bees to swarm, must not add new apartments to their hives, as they exhaust all the wax the young bees possess, and thus render the young swarm unable to fill them with comb.

You may ask why should this be so, when blossoms are plenty? The reason to my mind, is obvious: The wax is brought into the world with the young bees, in the form of scales which are covered from view under the rings or wrinkles of their body. If any doubt the correctness of this statement, I would recommend such to catch a young bee about swarming time, and by closely examining its condition, it will be found as here stated.—I feel certain that my theory, though probably new to most people, is founded upon truth, and that in all creation there cannot be found one thing that will make beeswax.

I have invented a plan to destroy millers when bred in the hive. The hive, whether made of boards, straw, or of a hollow tree, should be perfectly air tight, or at least free from cracks, with the exception of a hole or passage for the bees to pass in and out of it. Having secured this point I bore a hole with an augur in the side of the hive sufficiently large to admit with difficulty the neck of a common glass quart bottle. A wire screen should be placed over the inside of the hole the meshes of which should be large enough to admit the miller to pass through without difficulty, but at the same time, not so large as to enable the bees to pass through them. The bottle should contain three or four table spoons full of oil, or other liquid of a gummy nature. When the millers attempt to go out of the hive as they will naturally do, the bees will chase them through the hole, where they will directly expire, being brought in contact with the oil.

WM. H. WILSON.

Germano, Harrison County, O.

REMARKS.—The foregoing theory in regard to the formation of bees wax, is entirely new to us, and we doubt whether it will be deemed correct by experienced apiarians. If we admit that wax is excreted, or formed in some way by the young bees in the larvæ state, we do not think it is possible for them to carry enough with them at swarming to form such an amount of comb as is produced in the new hive before young bees are again brought forth. But we leave this question for those more skilled in the business, to decide.

The plan of our correspondent for destroying millers is also novel and ingenious; and we think will be found effective in some cases; though it only applies to hives where the moths have already entered or are bred inside.—ED.

More about Bees.

EDITOR OHIO CULTIVATOR:—You want to know something about the management of bees. I therefore will give you my plan. About the last of February, I move the bees if necessary, and clean off the benches. As soon as there is any sign of millers, I examine the hives early every evening and morning, and raise them gently up and take out and destroy the worms. When the weather gets warm and the bees hatch young ones, put four little blocks, say half an inch thick, under the hive, just large enough to let the bees out all around the hive, after which they will require but little care until the period of swarming. The hives used for the first season are 11 by 12 inches wide, and 16 inches high, and those used for the second swarm are about half the size of the former, which are employed for the simple reason, that if put into large hives they will do no good. I bore one or two 1½ inch holes in the top of the hive, and put small boxes on top, the bottoms of which are open, and made to fit closely to the main hive, which will be filled within a short period with the best quality of honey. When full, I blow a little tobacco smoke in the top boxes or hives, and the bees will almost immediately leave them. I put small glasses with lids over them, in the top hives so that it may be readily ascertained when they are full. During the cold weather in winter, the hives ought to be raised a little, so as to let the air in, or else the bees will suffocate by perspiration and die.

HENRY RIDENOUR.

Franklin County, O., May, 1849.

HORSES.—Let it be a matter of duty with you to visit your stables daily, see that they are kept clean, that ample beds of straw are provided, the horses at each meal actually receive their allowance of food, and lastly, that a bottle of Merchant's Gargling Oil is always kept in the stable to be applied on the first appearance of any injury or swelling.

See advertisement in another column. Get a pamphlet of the agent and see what it has done for others.—*Med. Adv.*

HORTICULTURAL DEPARTMENT.

Hints on Gardening.

Plants of the Cabbage tribe, also Tomatoes, Pepper and Egg-plants that have been started in hot-beds, should now be transplanted in the open ground. See that the ground is first well prepared by deep spading or plowing and plentiful manuring—this is especially requisite for cabbage, cauliflower, &c.

Cut worms. If these are very numerous, wrap a hickory leaf, corn husk, or piece of strong paper around the stem of each plant when setting out, so as to form a shield one or two inches high above ground, and half as much below. Also examine the plants each morning, and if any have been cut off, look for the enemy near the plant and destroy him—then set new plants in the vacancies.

Cucumbers, Melons and Squashes, may be planted during the early part of this month with success. Select sandy ground if possible, and make it rich and mellow.—If the striped bugs have attacked your vines, go to work and make little square frames (or boxes without bottoms) and put over the hills as has been before recommended in our columns, or, take pains each morning to catch and kill the little varmints by hand—else apply the lime remedy described in our last paper by friend Curtiss, though from our own experience we don't think this will prove quite effectual, where the bugs are numerous and their food not abundant.

Beets for winter use, are better sown this month than earlier; but if the weather proves dry the seed often fails to vegetate. It should be soaked 3 or 4 days, and covered deeper than when sown early, so as to avoid drying by the sun.

Beans of all kinds may be sown now, and the dwarf kinds some weeks later, if necessary. Peas the same.

Kill the weeds by hoeing among growing crops, while young, otherwise much labor will be necessary afterwards to prevent the loss of the crop—to say nothing of the *disgrace* incurred by a slovenly garden.

Stirring the Soil is also a most effectual means of promoting the growth of garden crops in dry weather. Let it be done especially after showers, so as to prevent the baking of the soil on the surface which will otherwise occur if at all clayey.

Apples from Morgan County.

We have received from Dr. S A. Barker, several varieties of apples, but most of them too much past ripe for us to judge correctly of their merits. Among them were the Rambo, Seeknofurther, Bellflower and Greening—these, Doctor B. says, have kept longer than is usual with him. They are correct to name.

Black Gilliflower—"Was obtained from Pa., as Priestly—by some called Ladies' Finger"—both the latter names erroneous—the first correct.

Red Vandervere—was decayed; probably correct.

Yellow Vandervere—Have seen this, we believe, as Green Vandervere.

Winter Sweet Paradise—decayed.

Winter Cheese—Flavor gone.

Winter Beauty—A long keeper—good flavor, but rather dry, perhaps from exposure to the air. A handsome apple; yellow, with stripes of red; form, roundish flattened. We think it worth looking after; and its true name and history should be known.

Sigler's large yellow apples, called by him, "Pound" we think are Gloria Mundi, kept a little beyond their time—but perhaps we are mistaken. Dr. B. should see that this and the last preceeding are exhibited in convention next fall.

From Perry Co.—Friend Wm. J. Clarke has sent us specimens of "Fink's Seedling," thought by some to be Tewksbury Winter Blush. We have noticed this valuable, late keeping apple, several times, and the more we see and learn about it, the more highly we esteem it.

Raising Strawberries, &c., from Seed.—A friend wishes us to give directions how to manage the seeds of strawberries, raspberries and grapes, in order to secure their vegetation—the time and manner of sowing, &c.—Will our friend J. Burr, and others who have had successful experience, favor us with answers to these inquiries?

Insects (Aphis) on Plants and Trees.

Much injury is done to young fruit trees and many kinds of garden plants in this climate by aphis or plant lice. We have tried various means of protection but found none of them easy and effectual. The following from the Prairie Farmer is new to us and looks plausible:

My first remedy was a strong infusion of tobacco—say four ounces to six quarts of water. This was placed in a suitable vessel, which was held by another person, whilst I carefully bent down the limbs, one or two at a time, and immersed the ends of them in the infusion. A few trees were treated in this manner. The insects were killed by the tobacco infusion; but I thought the effect on the young shoots and tender leaves rather injurious.

Whilst reflecting on the subject, I remembered having read that the *bitter principle* was destructive to insects. I seized the idea and resolved to try it. The bitter selected was the common quassia of the shops, as being cheap and intensely bitter. Half a pound of the quassia chips were boiled for a few minutes in six quarts of water. When the decoction was cold, it was used in the same way as the tobacco infusion, with complete success, and without any apparent injury to the leaves or new growth. All the insects that were wet with liquid were killed.

Many of my young seedling apple-trees, that looked so miserable three weeks ago, are now sending out a thrifty growth, which contrasts pleasantly with the blackened and curled foliage below, which was nearly destroyed by the wood-louse.

The Garden.—No one can be truly said to live who has not a garden. None but those who have enjoyed it can appreciate the satisfaction—the luxury—of sitting down to a table spread with the fruits of one's own planting and culture. A bunch of radishes, a few heads of lettuce taken from the garden of a summer's morning for breakfast; a different affair from market in a dying con-

dition, to be put away in the cellar for use. A plate of strawberries or raspberries lose none of their peculiar flavor by passing directly from the border to the cream without being jolted about in baskets until they have lost all form and comeliness. And yet, how many in the smaller cities and villages of the country, possessing every facility for a good garden, either through indolence or ignorance are deprived of this source of comfort?—*Ex.*

On the Cut Worm.

I see in the last No. of the Cultivator, neighbor Curtiss, of Clintonville, rather asks me reciprocally for a *protector* for his cabbage and sweet potatoe plants against the cut worm. Well, I confess I feel like begging the question; but will refer him to the 2d vol. of the "Western Farmer and Gardener," p. 149.

Cut Worms and Husk Ruffles.—"We know of no remedy on the *farm* except such as freezing them by late plowing, &c. In the garden, *patience* and *pinching* are the only resorts, except one to be mentioned. Go over your stock every morning, where a plant is cut, search for the worm, which nine times in ten will be found buried within an inch or two of his nocturnal banquet. One or two days search will usually free any one patch from these marauders. They are omniverous; at least in vegetable food. Our lettuce did not put them to sleep—our Rhubarb did not prove at all drastic; cabbages and tomatoes, peas and beans, were luxuries, they sweetened their breath with onions, and evinced their taste for flowers by cutting some of the choicest rose sprouts. But we laughed in our sleeve, when we set out a fine row of bull peppers—and so did they; for they eat every one of them with a relish that would have quite ravished the heart of a botanic doctor."

"The plan alluded to, of escaping them, is to employ corn husks in transplanting them, for wrappers. A husk is loosely bound round the stem of cabbage plants, tomatoes, &c., from the leaves to the roots, and the plant set so as to leave a full inch of the husk-shield above ground.

This requires a little more time and pains, but not so much as to set your plants a second time, and we have in every instance, since we tried it, saved our plants in spite of their teeth." L. S. M.

"Prairie Potatoe" and Prairie Pea."

In our paper of March 1st, page 67, current vol., is a communication from D. L., giving some notice of several vegetable productions of the Western Prairies which writers had supposed might be worthy of cultivation as substitutes for the common potatoe, &c. We invited the attention of the editors of the Valley Farmer to the communication of D. L., and the following response is contained in the May No. of that excellent new paper:

For the purpose of obtaining information on this subject, we addressed the following note to THOMAS ALLEN, Esq., President of the St. Louis Horticultural Society:

Valley Farmer Office, April 7, 1849.

DEAR SIR:—If it is not asking too much of you, I wish you would enquire of the members of the Hort. Soc. if they can communicate any information in regard to the "Prairie Potato," referred to on page 67 of the Ohio Cultivator, which accompanies this note? Has it ever been cultivated in this region; if so, with what success? We shall be very grateful for any information on the subject, as it may be a matter worth looking into.

Respectfully, your obedient servant,

E. ABBOTT.

The matter was referred to Mr. N. REIHL, who has kindly favored us with the following communication:

The plant which furnishes the root in question does not seem to be the Apios tuberosa; whose roots are smaller, about one inch in length, with a diameter of half an inch, and commonly from three to six of them attached together by a filament. Raw they taste sweet, but not very farinaceous, roasted they are very watery, and in every respect inferior to the Irish potato. The description given in Mr. Bryant's book, suits much better another plant, of which the Indians in the western prairies use the root, and which forms principally their vegetable provisions.—They call it "Bread Root," and it may also be called "Prairie Potato." Its botanical name is Boralea esculenta, first described by Pursh, who also gives a figure of it. It grows all over the western prairies, from the State of Missouri to the Rocky mountains, but no where in great quantities together. I first met with this plant about four years ago, in the beginning of June, on a dry rocky hill, five miles southwest of Hillsboro', Jefferson county, Mo. It was then in seed and nearly dry. The whole plant did not exceed five inches in hight. Some of the roots were taken up and planted in my garden in very fertile soil, where they have been flowering and bearing seed every spring. The root consists of a tuber of from one and a half to two inches in length and about one to one and a half in diameter; the skin is of a dark brown, or nearly black color, the inside is white and consists of solid farinaceous matter, of very agreeable taste, intermingled with some lignous fibres. Each plant consists of one tuber only, which slowly increases in size every year, but does not multiply, even with the best cultivation. From this tuber come up early in May one or several stems bearing hairy palmated leaves with five segments, of a greyish green color; the flowers are small, pale blue, and assembled into a pyramidical spike. In July the plant, which with me does not exceed eight inches in height, disappears entirely from the ground.

These observations prove that no hope can be founded on this, as it is too small and of too slow a growth.

The same may be said of Apios tuberosa, which is common along the creeks and branches, in very fertile soil about St. Louis; and which has been known and cultivated in European gardens, as an ornamental plant, since 1640, or more than two hundred years.

Last winter the "Courier des Etats Unis," of New York, published a communication from a gentleman in the West, who pretended to have discovered a new esculent root of superior quality, and called it "Picotianne." He also recommended it as a substitute for the Potato. Specimens of this root were sent to Dr. G. Englemann, of St. Louis, where I saw one of them. It was the Boralea esculenta.

The plant alluded to, and called the "Prairie Pea," probably is Astragalus trichocalix, of Torey and Grey, which already but rarely appears on the prairies and bluffs of Missouri and Illinois. It is a fine perennial plant, from six to eight inches high, with grey, hairy, pinnated leaves and spikes of pale sulphur yellow; flowers in April; the fruit is very singular—a nearly globular pod. When young they are very tender and agreeable to eat; when grown the largest may be nearly an inch in length and nearly the same in diameter; then the weight of the pods bends the whole stalk to the ground.

Phaseolus leiospermus, has a long, tough pod, not eatable; the plant from two to five feet long, climbing or rather prostrated. N. RIEHL.

HOUSEWIFE'S DEPARTMENT.

Dwelling Houses Domestic Comforts.

The following remarks on the construction of dwelling houses, &c., are taken from a recent cheap publication by O. S. Fowler, author of various works on phrenology, &c. We insert them in our Housewife's department, because we are sure that our female friends will testify to their truthfulness, and through them the sentiments expressed will be most likely to reach the minds of those who are concerned in constructing dwellings or furnishing the comforts and conveniences of domestic life. We know of no subjects in regard to which there is more

need of light and improvement in this country, and especially among farmers, than these.

WHAT CONSTITUTES A PERFECT HOME?

That which combines the most facilities for enjoyment, with more especial reference to FAMILY comforts. This is the sole end of having a dwelling, and all we can rationally seek in one. How, then, can THIS end be secured? This inquiry we hope to answer throughout the progress of the volume. Meanwhile, let us consider a few of the grand principles which govern this matter.

TO ENCLOSE SPACE is the first and main object in building. This is done by MAKING WALLS—and we will call roof, ceiling, floors, doors, etc., walls.

STRENGTH AND TIGHTNESS are also required, the former to resist blasts, and the latter to exclude rains and colds. Light ventillation, cleanliness, dryness, etc., embrace other objects; but of these as we proceed.

ROOMS convenient, easy of access, etc., should also be secured, and especially such an arrangement of them as shall facilitate "HOUSEWORK." Every housekeeper knows that it requires twice the labor to do a given amount of work in some houses that it does in others. Now to have the rooms and their accompaniments so constructed as to have every thing handy and convenient—a place for every thing and every thing in its place—is indeed a great desideratum. How much fretfulness and ill-temper an unhandy house occasions.

WARMTH, easy, cheap and complete, is also a great desideratum, because so promotive of comfort. What pleasure can be taken in a barn of a house, all open, and the chilling winds perpetually pouring in through a thousand crevices, so that you freeze one side while you roast the other—every thing frozen in winter, or your sleeping rooms small, low, close, and right under a thin roof, so that you swelter the forepart of an August night, and perhaps catch a death-cold towards morning—and one or another of the family sick most of the time, or else now and then falling into premature graves?

CHEAPNESS is another matter, to some, and especially to the poor, of great importance. Indeed, all should inquire how they can build the best house with the least means. Not that I would stint a house, or sacrifice utility on the altar of cheapness, for, as already stated, I believe in appropriating no inconsiderable a portion of our earnings to improving home; but be the sum thus appropriated greater or smaller, all should strive to make the most of it, that is, to combine as many comforts for their money as possible. However rich a builder may be, he should WASTE nothing, but, after disbursing every dollar wisely and economically, should give the balance to some poor neighbor. Yet time and money are wisely spent which add to the real solid pleasures of home and family. All of us shamefully neglect this essential point. We carelessly tolerate evils and miseries by the score for days and years which a few hours or dollars would remove. We fail to give our domicils their due proportion of our time and funds. No matter what a house does cost, so that it is GOOD. Better spend our funds for this than for thousands of those things on which we now well-nigh waste it. Let others spend their money for balls, fashions, etc, but let me spend mine for a real family homestead; and then let me year by year, spend no small part of my income in adorning and improving it, till, in the decline of life, I shall have a PERFECT HOME for myself and family, surrounded with every comfort, my land rich, my trees annually loaded with every variety of the choicest fruits, and the whole supplied with every thing that can conduce to beauty, utility and comfort. Let every one procure as good a house as he is able—even better than most think they can afford, though at the sacrifice of many other things—but build as cheap as possible for the value.

Yet there are few things on which men can, and do, literally squander money as foolishly as in building. To build without a plan, or with a crude one, and then to alter this, and patch on that, is as wrong as it is imbecile. See how unwise C———, of Boston, is, in so often altering and remodeling his house. GET ALL READY before you lay the first stone. Especially MATURE YOUR PLAN. Know just what you want, and how you want it, and then how to do it. Leave less to the mechanic, for he may care less about your house than your money, and knowingly omit some good, or commit some error, just to get pay for altering it, and then excuse it by alleging that he knew nothing of how you wanted it done. Or he may propose some costly addition, of little real value, just to get a chance to put money in his pockets. I boss my own buildings, and will show you in this work how to boss yours. Besides, the judgment of carpenters is sometimes inferior to that of common-sense men, because the former are hide-bound in the old way, while the views of the latter are oftener allowed to act untrammeled.

Housekeeping and Housekeepers.

Here is another excellent "letter to Country Girls," from the pen of Mrs. Swisshelm, editrees of the Pittsburgh Visitor:

Well, I almost wish, Girls, I had not said any thing about keeping house! Our folks talk of sending in a "majority report" against having my system of housekeeping farther disseminated. They cast comical looks at the piles of newspapers, scattered books, tossed workbaskets, &c., &c.; but I did not advise you to keep *your* room all topsy turvy like mine! You may have it as neat and nice as you can afford, without making that *the* one object of life. What I object to in house-keeping, is, making houses the centre, around which things celestial and terrestial must revolve. I do not believe the chief end of man is to *build* houses, and the chief end of woman to *keep* them. My idea, is that houses were made for the inhabitants, and not the inhabitants for the houses, and that by some means house-keeping should be kept from becoming the primary object of life. I do argue that a little tact and management will enable almost any woman to regulate her domestic concerns so as to keep her family comfortable, and have time for mental culture —for becoming acquainted with the beautiful and wonderful things the Creator has scattered around us with profuse and bounteous hand.

Few things do more to keep the brand of inferiority on woman's brow, than the petty rivalries engendered by the tin scouring—floor scrubbing demon with which so many of them are possessed.—Get a few *house-keepers* together and listen to the history of dirty closets—soild paints, greasy floors, &c., &c., hear with what gusto they dive into some body's kitchen sink, see if you will not wonder whether the Turks are very far wrong after all. One could scarce imagine that a creature with a soul could be so taken up with such subjects!—There is little of this in what is called good society! Pride, if not politeness prevents women there, from canvassing their neighbor's kitchens, and they generally make it up in drawing-room trifles which are little if any better. The reason men are not generally so much given to trifling as women, is they have some object for thought beyond dressing and eating. They dress and eat but their larger intercourse with society furnishes some food for thought even while engaged in these necessary avocations.

Women require something to think about as well as men. If they have no care to provide for a family, and their avocations lie within doors, their subjects of thought become circumscribed; and if they do not guard against it they learn to set undue value upon trifles—to value themselves upon the style of their furniture, the shape of their dress, or the polish of their coffee pot. Thus they get to rivaling, and envying one another. Did you never feel badly because Sarah S. or Mary B. had a new bonnet, or dress that was prettier than yours, or because somebody said her kitchen was cleaner than yours.

High intellectual culture will correct this feeling; but for country girls who know little about philosophy, I know nothing so likely to guard you against little envy

and malice as the love of flowers. I have often observed, that I seldom saw two people envy one another seriously about their flower beds or shade trees. There is a kind of religious, humanizing, generous effect in loving the beautiful things of nature that makes us love one another. Those who really love flowers and trees, love to see every body have them; while those who stake their respectability on dress or house-keeping almost universally dislike to see others approach their standard or rival them in their boasted sphere. This shows that learning to love beautiful things of nature beautifies our spirits, while priding ourselves on bright tin pans, well scoured floors, or costly furniture, disfigures our immortal part.

The country home that has its shade trees, its shrubbery and flowers, has hallowed memories to win back the hearts of its wanderers, and brighten their gloomiest hours. The woman who fails to have a green spot, and shade at her door, fails in one important part of her domestic mission! Her home will not be so endeared to its inmates as it otherwise would be! True, the outside decorations should chiefly belong to man's labor; but very many men will not plant a tree or flower, who could be taught to love them and add to them if some one would begin. So, girls, do not scrub and cook and scour until you have no time left to plant a tree or vine and flower! Little care will suffice them when once planted; and they will do more to beautify and adorn home than the contents of a ten pedlar's cart, polished every Saturday, until they dazzle and outshine the neighborhood.

How to make Cream Cheese.—For two cream cheases, take six quarts of new milk, one of sweet cream, to which add two or three spoonsfull of rennet, and let it stand until sufficiently firm—spread a linen cloth in a large basin of cold water, lay the curd gently on it, tie the cloth and hang it up to drain for four or five hours in a cool place; then change the cloth, and put the curd into a vessel, the circumference of a common plate, and press it moderately six or eight hours, when it must be taken out, turned, and split horizontally with a thread, lay the cloth between the two cakes, and again put them in press for 12 or 14 hours; if then pressed enough, which can be ascertained by their firmness, keep them in fresh grass a few days, turning them morning and evening.—The price of these cheeses, about the fill of a common dining plate, is 25 cts.—*Phila. Am. Courier.*

CATTLE FOR SALE.

140 Head of Cattle, from 2 to 4 years old, 30 or 40 fit for the butcher, for sale by the subscriber, half a mile south of Tremont, in Clark county, (on the turnpike.) I will sell part or the whole—this being the third lot I have bought and sold this spring. Persons wishing to purchase will do well to give me a call, and if I have sold I will direct them to other lots that are for sale My cattle are of good quality, in good order and in good pasture.

Tremont, O., May 21, 1849. SILAS H. GARD.

440 HEAD OF FINE SHEEP FOR SALE.

THE subscriber having sold his farm, he wishes to sell his flock of Sheep at private sale. A great deal of care has been bestowed upon breeding strong healthy constitution, length of staple, and weight of fleece. The flock has been improved by some of the best Saxony Bucks in the country, and those desiring to purchase fine sheep will find this a rare opportunity to make selections. Purchasers can be suited in number. The owner will reserve the fleeces. Selections can be made before clipping, which will be about the 1st of June, and a short credit will be given if desired. Samples of the wool can be seen by calling on the Editor of the Ohio Cultivator, at Columbus; and any information by addressing the subscriber at Bolivar, Tuscarawas County, Ohio.

May 1, 1849—2t p D. YANT.

PETERS' BUFFALO WOOL DEPOT.

(THIRD YEAR.)

I Have established a Wool Depot upon the following plan: 1st.—The wool is thrown in 10 sorts: Merino Wool being No. 1. the grades numbering down from 1 to 5: the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2. Combing and De Laines make 2 sorts more.

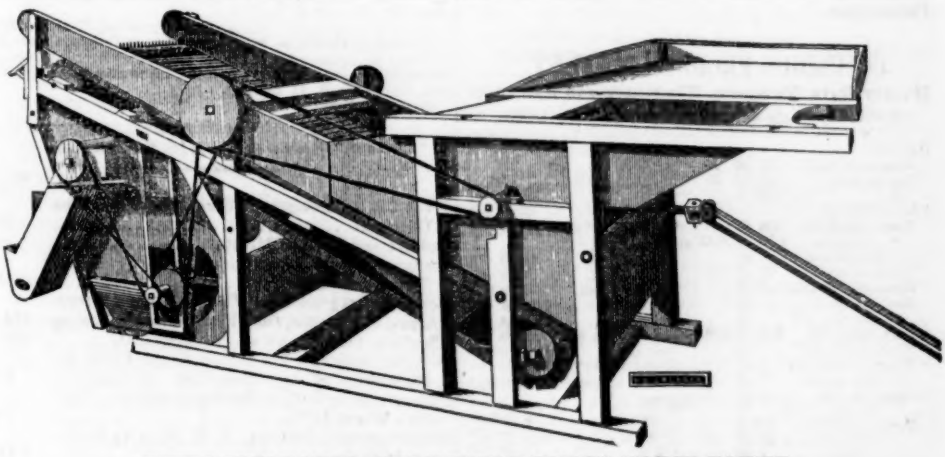
2d.—I charge for receiving, sorting, storing and selling, *one cent per pound*; this includes all charges at the depot, except insurance.

3d.—Sales are made for cash, except when otherwise directed by owner.

☞ All wool consigned to me should be marked with the owner's name.

Warehouse corner of Washington and Exchange streets.

Buffalo, May 1, 1849. T. C. PETERS.



PITT'S SEPARATOR AND DOUBLE PINION HORSE POWER.

THE subscriber having established an Agricultural Machine Shop at Springfield, Clark County, Ohio, has now for sale, Fifty of his Separators and Horse Powers. The above cut is a representation of the Separator It is the same Machine *that has long stood, and now stands unrivaled* by any machine for threshing and cleaning grain. It has been exhibited at State and County Agricultural Fairs, in the United States and in Canada, and always received the First Premium. I therefore offer it to those who wish to purchase a good machine, to be all I claim for it, viz: The best machine for Threshing and Cleaning Grain in Existence.

The Horse Power for strength, ease, durability and cheapness of repair, is not surpassed. The Driving Wheel is 6 feet in diameter and drives two full Pinions, each receiving an equal amount of Power. Two Bevel wheels driven by these Pinions connect with two Pinions on the line shaft, giving said line shaft seventy-five revolutions to the horses once round. Thus it will be seen this Horse Power is just double the strength of any single geared power, it being literally a double horse power throughout.

Pitt's Mill for Grinding Corn and Cob, for Provender.—It will grind from ten to twenty bushels per hour. There is now over one hundred of the mills in the hands of the American farmers, who are well satisfied with their operation and durability.

The mill is furnished with an extra hopper for grinding shelled corn, &c., which it reduces to the required fineness for provender, very rapidly. It is driven by hand and is easily adapted to horse, steam, or water power. *Price* $50.

Springfield, Ohio, May 25, 1849. JOHN A. PITTS.

The Markets.

English News continues unfavorable for prices of flour and wheat; and no improvement has taken place in these artiles in our own markets. With the present fair prospects for the coming harvest, farmers must not expect high prices. Corn, oats and most of the smaller products continue in good demand—also beef cattle and dairy products. The prices of wool are not yet fully settled, but the prospect seems better than last year.

Cincinnati, May 26.—Flour 3,65 @ 3,75 per barrel; Wheat 70 @ 75 per bu.; Oats 30 @ 31; Corn 28 @ 30; barley 70 @ 75; flax seed 87 @ 90; Potatoes 70 @ 75; Dried apples 50 @ 55 cts. per bu.; Peaches 140 @ 150.—Pork, mess, $9 @ 9,50 per bbl. Lard 6 cts. per lb.; Butter for packing, 10 @ 12½ cts.—best May butter retails at 20 cts. Cheese continues at 6¼ @ 6½ for shipping—extra quality for retail, 8 @ 10 cts. *Wool* is quoted, full blood 28 @ 30; ¾ do 26 @ 27 cts.; ½ do 25 @ 2 cts.; ¼ do 23@ 24 cts.; common 22@ 23 cts.; pulled 20 @ 22 cts.

Zanesville, May 24.—Wheat at Zanesville 65 cents, and coming in pretty freely. Dresden 70 cents. Flour at retail in Zanesville, $3,75.—*Gaz.*

Mansfield, May 22.—Flour $4; Wheat 75; Oats 25; Corn 37½. Salt 175 per bbl.

Cleveland, May 24.—Flour $4; Wheat 80 @ 83 cts.; Corn 42; Oats 25; Barley 45; Potatoes 87; Pork $10.—Butter 10 cts; Cheese 5 @ 6¼ cts.r Wool 18 @ 25 cts.

New York, May 25.—Flour 4,62 @ 4,75. Ohio wheat 105 @ 107. Corn 62 @ 65. Pork 9,50 @ $10 for mess.

Baltimore Cattle Market.—On Monday, 21st, there were offered 300 head, 200 of which were sold at an average of 4,50 gross, equal to 8,50 nett—balance went to Philadelphia.

COLUMBUS PRODUCE MARKET.

Market Days, Tuesdays, Thursdays and Saturdays.

Corrected for the Ohio Cultivator, May 26, 1849.

GRAIN.			POULTRY.		
Wheat, ₱ bu,	68 @	70	Turkeys, each,	37@50	
Indian corn,	30 @	32	Geese, "	25 @	37
Oats,	25 @		Ducks. "	12 @	15
PROVISIONS.			Chickens, "	12@	15
Flour, retail, bbl,	400 @		SUNDRIES.		
" 100 lbs	2,00 @	2,25	Apples, bu.	50 @	75
" Buckwheat,	@		" dried,	50 @	62
Indian meal, bu	37 @	40	Peaches, dried,	1.50 @	1,75
Homminy, quart,	3 @		Potatoes,	87 @	100
Beef, hd qr	@		Onions,	1.00 @	
" fore qr	@		White beans bu	1,00 @	
Pork, mess, bbl.	9,00 @	9.50	Hay, ton,	5,00 @	6.00
Hogs, ₱ 100 lbs,	@		Wood, hard c'rd	1,50 @	2.00
Hams, country lb,	6 @	7	Salt, bbl., fine	2,12½ @	2,25
" city cured,	7 @	8	SEEDS.		
Lard, lb., ret,,	5 @	6½	Clover, bu.,	2,75 @	3.00
" in kegs or bls.	@		Timothy,	1,50 @	2,00
Butter, best rolls,	12½ @	15	Flax,	75 @	80
common,	10 @	12½	ASHES		
in kegs,	8 @	9	Pot, 100 lbs	3.50 @	4,06
Cheese,	5 @	6½	Pearl,	4,00 @	4.50
Eggs, dozen,	6 @	7	Wool, common,	20 @	22
Maple sugar, lb,	7 @		half bl'd,	23 @	25
molasses, gal.	62 @	70	full bl'd.	@	
Honey comb, lb,	10 @	12½			
" strained,	12½ @	14			

REVOLVING HAY RAKES.

A constant supply of the most approved patterns and styles Revolving Hay Rakes will be kept on hand, during the season at the Seed Store and Agricultural Warehouse, Nos. 33 and 35 Lower Market street, Cincinnati. Price, nine dollars each.

JOHN F. DAIR &CO.

May 1st.—6t.

Important to the Farrier, Farmer and Stage Proprietor!

GEO. W. MERCHANT'S CELEBRATED

GARGLING OIL.

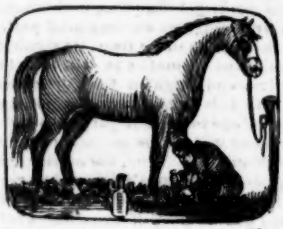
UNPARALLELLED IN THE HISTORY OF MEDICINE, AS THE MOST

Remarkable External Application yet Discovered!

FOR HORSES AND HUMAN FLESH.

FACTS ARE STUBBORN THINGS!!!

WHAT HAS BEEN DONE CAN BE DONE AGAIN



Ignorance of facts and philosophy, however, start it the assertion that any one remedy can possess within itself the virtue of curing many diseases. Experience of more than 14 years has nevertheless established the fact that Merchant's Celebrated Garging Oil, or Universal family Embrocation, will cure most cases, and relieve all such as

Spavins, Sweeny, Ringbone, Windgalls, Poll Evil, Callous, Cracked Heels, Galls of all kinds, Fresh Wounds, Sprains, Bruises, Fistula, Sitfast, Strains, Lameness, Sand Cracks, Foundered Feet, Scratches or Greese, Mange, Rheumatism, Bites of Animals, External Poisons, Painful Nervous Affections, Frost Bites, Boils, Corns, Whitlows, Burns and Scalds, Chilblains, Chapped Hands. Cramps, Contraction of the Muscles, Swellings, Weakness of the Joints, Caked Breasts, &c.

Get a pamphlet of the Agent, and see what wonders are accomplished by the use of this medicine.

Sold by Druggests and Merchants in the United States and Canada. All orders addressed to the Sole Proprietor, GEO. W. MERCHANT, Lockport N. Y.

Agent at Columbus, G Denig & Son; Cincinnati, Gordon & Israel; Cleveland, Henderson, Punderson & Co., and others; Zanesville, Eastman & Bigelow; Kenton, Geo. Sweney; Newark, Cannon & Brownfield; Lancaster, Berry & Beck; Circleville, Troup & Rickardt; Chillicothe, R. H. Lansing.

May 15th, 1849.

CONTENTS OF THIS NUMBER.

	Page
Knox Co. Ag. Society; Wheat Culture and Blue Grass,	161
Culture and Uuse of Millet,	162
Culture of Ruta Baga; Fattening Hogs; Russia Turnips,	163
Science of Agriculture—Use of Clover, Straw, Ashes, Plaster, &c, from Prof. Norton's Address	164-5
The Cow, her Diseases and Management,	166-7
Editorial Notices—The Season, Crops, Fruit, &c; State Board of Ag.; New Com. of Patents,	168
Palmer's Grain Drill or Sowing machine; Gatlin's Wheat Drill,	169
Improvement in Farming; N. Y. State Ag Society, 1849,	170
Bees and Bee management; Horses,	171
Horticultural Department.	
Hints on Gardening; Apples from Morgan Co. &c; Aphis on Trees and Plants; Raising Strawberries, &c., from Seed; Value of the Garden,	172
The Cut Worm; Prairie Potatoe and Praire Pea,	173
Housewife's Department.	
Dwelling Houses—Domestic Comforts,	173
Housekeeping and Housekeepers,	174
How to make Cream Cheese; Advertisements,	175
Markets and Advertisements,	176